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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
TOOMER, CEPHIA D	

ART UNIT	PAPER NUMBER
1714	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/720,257	GUNTHER ET AL.	
	Examiner	Art Unit	
	Cephia D. Toomer	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-12 and 14-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-12 and 14-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *08/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office action is in response to the amendment filed October 16, 2003 in which claims 9 and 11 were amended.

The rejection of claims 10 and 13 under 35 USC 112 second paragraph is withdrawn in view of Applicant canceling claim 13.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 3, 5-12, 14 and 16-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7, 9, 10 and 12-13 are of copending Application No. 10/505,767. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present invention are not as broad with respect to the propoxylate additive and the amine detergent. Therefore, the species of the present invention anticipate the genus of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 is rejected because it is incomplete. The claim does not set forth the particulars of the propoxylate.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 5, 7-10, 14 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 704519 with US 6,579,329 (Thomas) as the English translation.

EP teaches a fuel composition for internal combustion engine comprising a major amount of liquid hydrocarbon fuel and a (i) polyether additive and hydrocarbon polymer. The polyether is based on propylene oxide units wherein n is 8-30 and isotridecanol

(see also col. 3, lines 15-25). The additive mixture further includes a (ii) polyisobutylamine detergent additive having a molecular weight of 500-1000 (see col. 2, lines 51-54 and Examples). The ratio of (i) and hydrocarbon polymer and (ii) is 5:95 to 85:15, preferably 20:80 to 80:20 (see col. 3, lines 54-56). The individual proportion of (i) and (ii) is 10-5000 ppm fuel (see col. 4, lines 12-15). The additive is used as an intake valve cleaner additive for fuel composition in internal combustion engine (see col. 4, lines 36-41).

Accordingly, EP '519 teaching all the limitations of the claims anticipates the claims.

7. Claims 1-3, 5-11, 14 and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 878532 (Daly).

Daly teaches a fuel composition comprising a fuel composition comprising a major amount of liquid hydrocarbon (see page 4, line 5), (i) a polypropoxylate additive (polyether) (see page 4, lines 48-58 and page 5, lines 25-29), and (ii) a detergent (see page 6, lines 44-52 and Example 6, footnote 9). Components (i) and (ii) are present in an amount of 100-10,000 mg/kg fuel (see page 9, lines 27-33) and are used to prevent or reduce the formation of intake valve or combustion chamber deposits or to remove their deposits (see page 9, lines 40-42).

The polyether is of the formula $RO[CH_2CHR_1\text{-}O]_x$ –H wherein R is a hydrocarbyl group of 10 to 20 carbon atoms, R_1 is methyl and x is 4-40 (see page 4, lines 48-58). The detergent is a polybutene amine possessing a molecular weight of 500-3000 (see page 6, lines 48-52).

Accordingly, Daly teaching all the limitations of the claims anticipates the claims.

8. Claims 1-3, 5, 7-10, 14 and 16-18 rejected under 35 U.S.C. 102(b) as being anticipated by Aiello (US 5,006,130).

Aiello teaches a fuel composition that cleans intake valves in internal combustion engines. The fuel composition comprises a major amount of liquid hydrocarbon fuel and a polyether additive b(iv) of the formula R_1 –O-(R_2 O)$_n$ R_3 wherein n is at least 7 and R^1 and R_3 are each independently H or an aliphatic radical containing up to 40 carbon atoms and R_2 is a 1,2-propylene group (see abstract; col. 5, lines 53-61; claims 1 and 8-15). The additive is present in an amount of 80-100 ppm of the fuel (see col. 6, line 45). The fuel also contains about 2.8 ppmw or higher of an alkylene polyamine additive (see col. 3, line 63 to col. 3, lines 1-2 and Table I). The additive is prepared as a concentrate (see col. 7, line 57).

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claims 1-3, 5-11, 14 and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Jackson (US 6,348,075).

Jackson teaches a fuel composition comprising component (A) at least one polyalkyene substituted amine and (B) at least one hydrocarbyl-terminated poly(oxypropylene)monool represented by the formula $R[OCH_2CHCH_3]_x$-OH wherein R is an alkyl of 8-20 carbon atoms and x is from 13-28. The weight ratio of A to B ranges from 10:1 to 1:10. The fuel additive composition reduces intake valve deposits in internal combustion engines (see abstract in its entirety; col. 3, lines 1-27). The polyalkene may be polyisobutene (see col. 4, lines 23-29, 40-47). The amine is of the formula HNR^1R^2 wherein R^1 is a hydrocarbyl group up to 30 carbon atoms and R^2 is H (see col. 5, lines 36-43). The fuel composition comprises 10-5000 ppm each of components A and B (see col. 9, lines 19-24). The composition may contain convention fuel additives and may be prepared as a concentrate (see col. 9, lines 35-54).

Accordingly, Jackson teaching all the limitations of the claims anticipates the claims.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 6, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 704519.

EP has been discussed above. EP fails to teach the claimed ratio of polyoxypropylene ether to polyamine. However, it would have been obvious to one of ordinary skill in the art to have optimized the components given that EP teaches in Examples 4 and 6 a 2:1 and 3:1 ratio of polyamine to isotridecanol reacted with 22 mol of butylenes oxide.

12. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aiello (US 5,006,130).

Aiello has been discussed above. Aiello fails to specifically teach the addition of a lubricity additive. However, it would have been obvious to one of ordinary skill in the art to have included the ester because Aiello teaches that the composition may contain a mixture of the polyether and the ester and it is well recognized in the art that esters function as lubricity additives.

Response to Arguments

13. Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that the claimed propoxylate additive of Formula I has superior properties to propoxylates of sorter or longer chains. Applicant basis this argument on the data presented in Table 1 and 2 of the present specification.

Applicant's data have been reviewed and is not deemed to constitute unexpected results. The data of Table 1 show that the branched C_{13} alkyl having 15 propylene

oxide units is a better intake valve deposit reducer than the branched C_{13} having 10 or 20 propylene oxide units. However, claims 1, 3, 10 and 14 are not limited to the branched C_{13} alkyl propylene oxide. The examiner cannot ascertain from the data that the same results would be obtained with straight chain alkyl groups or groups wherein more or less carbon atoms are present in the compound. Also, the examiner cannot ascertain if the same results would be obtained with compounds with 14 and 16-18 units of propylene oxide as was obtained with 15 units.

Applicant argues that in order to anticipate the claims, the prior art must expressly or implicitly describe every limitation of the claimed invention. Applicant argues that none of the prior art references describe a propoxylate additive having 14-18 propylene oxide units and a single end-group that is a C_8-C_{18} alkyl or alkenyl group.

It is well settled that a generic formula will anticipate a claimed species covered by the formula when the species can be "at once envisaged" from the formula. Furthermore, prior art that teaches a range within overlapping or touching the claimed range anticipates if the prior art range discloses the claimed range with "sufficient specificity." In the instant case, the prior art meets these limitations. See MPEP 2131.02 and 2131.03.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 571-272-1126. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cephia D. Toomer
Primary Examiner
Art Unit 1714

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